1. Record Nr. UNINA9910890184803321 Autore Morimoto Yuji Titolo Cell Processing Technology / / edited by Yuji Morimoto, Taka Nakahara Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 981-9742-56-0 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (210 pages) Collana Current Human Cell Research and Applications, , 2522-0748 Altri autori (Persone) NakaharaTaka 660.6 Disciplina Soggetti Biotechnology Cytology Regenerative medicine Cell Biology Regenerative Medicine and Tissue Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1 Latest technological trends in cell processing -- 2 Evaluation of cellular dynamics in a living mouse by fluorescence imaging -- 3 Label-free & Damage-less Cell Sorting System Using Dielectrophoresis -- 4 Toxicological assessment of drugs based on electrical activities of human iPSC-derived cortical neurons, sensory neurons and cerebral organoids -- 5 Polysaccharide-based Cell Scaffolds for Cartilage Regeneration -- 6 Patient-derived stem cell medicine: a safe and reliable cell processing and regenerative therapeutic application of human dental pulp stem cells -- 7 Reconstruction of three-dimensional tissues using a tissue engineering approach involving an apatite-fibre scaffold and radial-flow bioreactor -- 8 Organ regeneration: progress in organoids and the challenges of exploiting animal developmental niches -- 9 Morphology-based non-invasive cell quality evaluation of cellular products in regenerative medicine -- 10 Control of Cell Function by Photobiomodulation. Sommario/riassunto Animal cells have been used in a wide range of applications, from pharmaceuticals to regenerative medicine and cell therapy, as well as evaluating drugs and compounds. These applications are supported by cell processing technology, which refers to the process technology and

quality control technology for aseptically culturing cells such as skin,

cartilage, and bone cells in vitro and producing the result of cells or tissues. Cell Processing Technology provides the state of the art of cell-processing engineering, including new issues of efficient and automated culture technology of cells in transplantation and non-invasive cell quality assessment technology. The book will be of value to students and inexperienced engineers who are involved in drug discovery and cell medicine.